
LYON COUNTY

(Lyon County Water Service Area Map)

- Estimated 1999 population of 6,800--over 85% on public water
- Estimated 2020 population of 7,300--over 88% on public water
- 170 miles of water lines, with plans for 30 additional miles
- Estimated funding needs for public water 2000-2005--\$4,795,000
- Estimated funding needs for public water 2006-2020--\$0

Lyon County had an estimated population of 6,780 (3,090 households) in 1999 with a projected population of 7,340 (3,445 households) in 2020. Public water is provided to 3,150 customers, or 85-90 percent of the county's residents. In areas of the county not served by public water, about 7 of 8 households rely on private domestic wells and 1 of 8 rely on other sources. 120 households will be added to public water service through new line extensions in 2000-2020.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
LYON								-
Lyon Co. W/D	30	120	795					795
Eddyville						4,000		4,000
TOTAL	30	120	795			4,000		4,795

PUBLIC WATER SYSTEMS

The residents of Lyon County are primarily provided water by three systems, the Lyon County Water District, the City of Kuttawa Water System and the City of Eddyville Water Department. Additionally, the Barkley Lake Water District serves approximately 75 residents in Lyon County and the Kentucky State Penitentiary has its own system that serves the inmates.

LYON COUNTY WATER DISTRICT

PWSID: 0720933
System Type:..... COMMUNITY
Owner Type: WATER DISTRICT
Surface Source:
Purchase Source:
Well Source:

WATER SERVICE AREAS

LYON COUNTY

Kentucky

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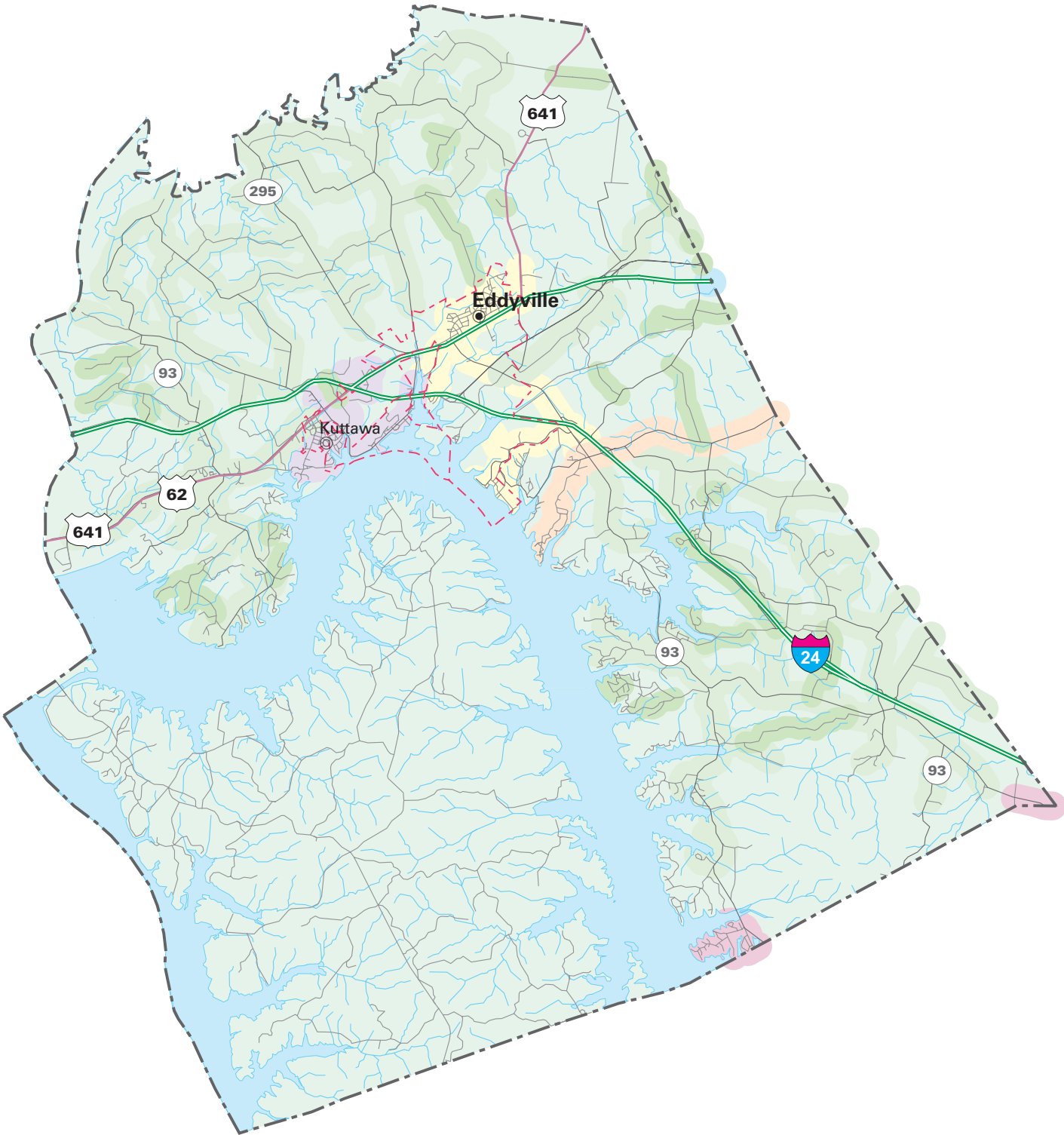
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WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		PRINCETON WATER & WASTEWATER COMMISSION
		LYON COUNTY WATER DISTRICT
		KUTTAWA WATER SUPPLY
		EDDYVILLE WATER DEPARTMENT
		CALDWELL COUNTY WATER DISTRICT
		BARKLEY LAKE WATER DISTRICT

Sells Water to:	
Treatment Plant Capacity (MGD):.....	0.00
Percent Daily Average Production:	0.00
Total Tank Storage Capacity (gallons):.....	475,000.00
Total Service Connections:	1,455.00
Number of Employees:.....	3.00
Treatment Operator Class:.....	2D
Distribution Operator Class:	
Customer Rate for 1,000 Gallons:.....	5.87
O/M costs 1997:.....	295,101.00
O/M costs per Service Connection:	210.19
Net Revenue 1997:	69,414.00
Total Water Produced 1997 (gallons):.....	0.00
Water Sold 1997 (gallons):.....	72,668.00
Unaccounted-for Water 1997 (%):	2.49

The Lyon County Water District purchases its water from both the cities of Eddyville and Kuttawa and additionally has a contract with the city of Princeton who serves as a back-up source. The district services a total of 1,468 customers, of which 17 reside in the adjacent Caldwell County. On an average day the system pumps approximately 199,000 gallons of treated water through its system.

According to the Phase 1 Lyon County Water Supply study completed in 1995, the water usage in the Lyon County Water District territory is projected to grow by over 21% by the year 2010.

EDDYVILLE WATER DEPARTMENT

PWSID:	0720113
System Type:.....	COMMUNITY
Owner Type:	MUNICIPAL
Surface Source:.....	LAKE BARKLEY
Purchase Source:	
Well Source:	
Sells Water to:	
Treatment Plant Capacity:.....	1.50
Percent Daily Average Production:	33.00
Total Tank Storage Capacity:.....	800,000.00
Total Service Connections:	1,300.00
Number of Employees:.....	3.00
Treatment Operator Class:.....	2D
Distribution Operator Class:	2A
Customer Rate for 1,000 Gallons:.....	NA
O/M costs 1997:.....	NA
O/M costs per Service Connection:	NA
Net Revenue 1997:	NA
Total Water Produced 1997:.....	NA
Water Sold 1997:.....	NA

Unaccounted-for Water 1997:.....NA

The City of Eddyville Water Department has a new 1,500,000-gallon per day water treatment facility which serves 1,301 customers in Eddyville, 325 customers in Fredonia (Caldwell County) and 1,468 customers of the Lyon County Water District. The City's present source of water is three wells; plans exist to construct an intake in Lake Barkley to replace the wells. The new 1,500,000-gallon water treatment plant is operating at 33 1/3% capacity. Storage consists of three tanks and a clear well with a total storage capacity of approximately 800,000 gallons. The City's distribution system is in good condition with water loss or non-revenue usage of 12.3%, which is considered very good.

Eddyville has experienced remarkable growth during the past 10 years due to their location in respect to the lakes, access to I-24 and West Kentucky Parkway, and the development of a large discount shopping mall which has provided employment as well as other retail outlets. In addition, due to their location in respect to the forenamed highways, the City has developed an industrial spec building on the 100-acre, fully developed industrial park to attract industry. According to the Lyon County Water Supply Plan, Eddyville's water usage is expected to increase 20% through 2010. Based upon the present volume of water used and the projections through the year 2010, Eddyville's water treatment plant can handle the growth provided a new raw water intake is constructed into Lake Barkley, and the three wells now used as the source be abandoned. This project is now in the planning stage, and the new plant is designed to handle Barkley Lake water.

KUTTAWA WATER SUPPLY

PWSID:..... 0720227
System Type:..... COMMUNITY
Owner Type:..... MUNICIPAL
Surface Source:..... LAKE BARKLEY
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 0.75
Percent Daily Average Production: 35.00
Total Tank Storage Capacity (gallons):..... 650,000.00
Total Service Connections: 410.00
Number of Employees:..... 1.00
Treatment Operator Class: 1D
Distribution Operator Class: 3A
Customer Rate for 1,000 Gallons:..... Not available

O/M costs 1997:.....	Not available
O/M costs per Service Connection:	Not available
Net Revenue 1997:	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%):	Not available

The City of Kuttawa serves 400 customers (369 households) within and around the fringe of the city limits. Their source of water is Lake Barkley with a treatment plant that has a total capacity of 750,000 gallons per day. Usage presently averages just over 300,000 gallons which is less than 50% of capacity. Storage consists of a clear well with 35,000 gallons of treated water and one standpipe with a capacity of 650,000 gallons. The city's distribution system is in good shape with a water loss or non-revenue usage of a little over 18% which is slightly above the 15% standard for water treatment facilities.

Kuttawa, like Eddyville, is expected to continue to grow through the year 2010. According to the Lyon County Water Supply Plan, water usage will increase approximately 20% through 2010. The City's source and treatment should be able to handle that volume as projected in the Plan.

OTHER SYSTEMS

KENTUCKY STATE PENITENTIARY

Kentucky State Penitentiary is located in Lyon County. The system serves a population of 1,000 and has 9 service connections. The state system water source is Barkley Lake

BAR X TRAILER PARK

Bar X Trailer Park is located in Lyon County. The system serves a population of 162 and has 49 service connections. The private, community system water source is wells.

IRON HILL CAMPGROUND

Iron Hill Campground is located in Lyon County. The system serves a population of 482 and has 146 service connections. The private, community system water source is wells.

BEND OF THE RIVERS

Bend Of The Rivers is located in Lyon County. The system serves a population of 295 and has 90 service connections. The private, community system purchases water from Lyon County Water District.

HOLIDAY HILLS CAMPING RESORT

Holiday Hills Camping Resort is located in Lyon County. The system serves a population of 446 and has 135 service connections. The private, transient non-community system water source is wells.

TARRYON CAMPING RESORT

Tarryon Camping Resort is located in Lyon County. The system serves a population of 150 and has 180 service connections. The private, transient non-community system water source is wells.

BUZZARD ROCK RESORT AND MARINA

Buzzard Rock Resort and Marina is located in Lyon County. The system serves a population of 150 and has 50 service connections. The private, transient non-community system water source is wells.

EDDY CREEK MARINA RESORT LLC

Eddy Creek Marina Resort LLC is located in Lyon County. The system serves a population of 330 and has 100 service connections. The private, transient non-community system water source is wells.

PRIVATE DOMESTIC SYSTEMS

About 1,000 people in Lyon County rely on private domestic water supplies: 850 on wells and 250 on other sources.

In the eastern and northern two-thirds of Lyon County more than three-quarters of the drilled wells in the uplands are adequate for a domestic supply. Yields as high as 50 gpm have been reported from wells penetrating large solution channels. In the low-lying areas of Eddy Creek most wells are inadequate for domestic use unless the well intercepts a major solution opening in the limestone in which the yield could be very large. Wells in the uplands of the

LBL in the southwestern quarter of the county generally do not yield enough water for domestic use. However in the lowlands adjacent to Kentucky and Barkley Lakes, three-fourths of the wells located within the bedrock yield enough for a domestic supply and can sometimes produce more than 5gpm.

Springs with flows ranging from a few gallons per minute to 1,280 gpm are found in the county. Minimum flow generally occurs in early fall, maximum flows in late winter.
